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10. (ONCE AMENDED) A liquid crystal display device according to claim 9, wherein the surface light source device and the projection rows of the prismatic element are separated by a distance of 0.5 to 1 mm.

11. (NEW) A liquid crystal display device positioned adjacent to a surface light source device, comprising:

a liquid crystal layer;

a polarization layer to transmit light components having a first polarization plane and reflect light components having a second polarization plane perpendicular to the first polarization plane, the polarization layer having front and back sides, the front side facing the liquid crystal layer, the back side facing the surface light source device; and

a prism sheet having front and back sides, the back side of the prism sheet having projection rows facing the surface light source device, the front side of the prism sheet being fixed directly to the back side of the polarization layer, such that the polarization layer and the prism sheet together form a unified structure.

12. (NEW) A liquid crystal display device according to claim 11, wherein the liquid crystal layer has front and back sides, and the liquid crystal display device has a pair of polarization layers such that one polarization layer is positioned on the front side of the liquid crystal layer and one polarization layer is position on the back side of the liquid crystal layer.

13. (NEW) A liquid crystal display device according to claim 11, wherein the polarization layer is a polarization film.

14. (NEW) A liquid crystal display device according to claim 11, wherein the polarization layer is a polarization separating sheet.

#### REMARKS

In accordance with the foregoing, claims 1, 2 and 4-10 have been amended and new claims 11-14 have been added. Claims 1-14 are pending and under consideration.

In item 1, the Examiner indicates that Japanese characters remain in the drawings. However, in response to the previous Office Action, Applicants eliminated all remaining

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Japanese characters and substituted English legends therefor. It appears that the Examiner is referring to the original drawings, not the translated drawings previously submitted. Enclosed are additional copies of translated drawings. The Examiner is requested to review the file and confirm that the appropriate drawings are being considered.

Claims 8 and 10 are rejected under 35 U.S.C. § 112, second paragraph for indefiniteness. The distance range has been corrected to  $-0.5$  to  $1$  mm. The undersigned regrets the oversight.

Claims 1, 2, 4, 5 and 7 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,587,816 to Gunjima et al. Claims 6 and 9 are separately rejected as being anticipated by Gunjima et al. Claims 3, 8 and 10 are rejected as being obvious over Gunjima et al. in view of "Applicant's admitted prior art."

With regard to claims 1-3, these claims have been amended to clarify that the liquid crystal display panel itself has a light control face directed toward an emission face of the light guide plate. This enables the liquid crystal display panel to modify the direction of light supplied from the surface light source device without requiring a separate direction modifying element, such as element 7 shown in Fig. 2 of Gunjima et al. The reference fails to disclose or suggest a liquid crystal panel which itself performs direction modification of input light.

With regard to amended claim 4, this claim is directed to a unified composite optical element in which a light control face serves as one surface of the polarization film itself. In Gunjima et al. Fig. 1, elements 6 and 9 have polarization functions. However, neither of these elements have a light control face. The prism array 7 is formed on a light diffusing sheet 8. However, the light diffusing sheet 8 has no polarization function.

With the invention claimed in claim 4, the unified composite optical element functions as both a light direction modifier and as a polarizer, features not found in Gunjima et al. Fig. 2 of Gunjima et al. shows element 6 composed of elements 6A and 6B. However, element 6A is merely a flat light transmitting supporter for element 6B, which is a dielectric film. Assuming that elements 6A and 6B together form a unified composite optical element, the function of elements 6A and 6B together is quite different from that of the claimed unified composite optical element.

With regard to claim 5, this claim is directed to a unified composite optical element in which one face of a polarization separating sheet member itself is a light control face for

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modifying directivity of input light. In Gunjima et al., the elements having polarization functions do not have a face that serves as a direction modifier. As mentioned above, elements 6A and 6B together have a function very different from a polarization separating sheet member having one face serving as a light control face for modifying directivity of input light.

With regard to independent claim 6, this claim is directed to still another unified composite optical element. According to claim 6, the composite optical element has a laminated structure of a polarization separating sheet and a polarization film wherein one face of the unified composite optical element itself is a light control face for modifying directivity. Such a unified composite optical element that functions as a light direction modifier, a polarizer and a polarization separator is not found in Gunjima et al. Perhaps the Examiner would argue that elements 6A and 6B of Gunjima et al. form a unified composite optical element. However, based on the preceding discussion, it should be clear that these elements are different from those claimed in that elements 6A and 6B have very different functions.

As to claims 7-10, these claims are directed to liquid crystal display devices employing unified composite optical elements similar to those claimed in claim 4 or 6. Since Gunjima et al. does not suggest the unified composite optical element, certainly it does not suggest the liquid crystal display device.

New independent claim 11 recites a prism sheet having front and back sides. The back side of the prism sheet has projection rows facing the surface light source device. The front side of the prism sheet is fixed directly to the back side of a polarization layer such that the polarization layer and the prism sheet together form a unified structure. Gunjima et al. discloses prism array 7. The only element having the claimed positional and fixed relationship with element 7 is element 8. Element 8 is a light diffusing sheet. On the other hand, the claimed polarization layer transmits light components having a first polarization plane and reflects light components having a second polarization plane perpendicular to the first polarization plane. Light diffusing sheet 8 is completely different.

In view of the foregoing amendments and remarks, it is submitted that the prior art rejections should be withdrawn.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is

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requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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on May 6, 20 02

STAAS & HALSEY

By: Manant

Date: 5-6-02

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE****IN THE CLAIMS:**

Please AMEND the following claims:

1. (ONCE AMENDED) A liquid crystal display panel disposed apart from a surface light source device provided with a guide plate having an incidence end face, an emission face and a primary light source supplying primary light which enters into the guide plate through the incidence end face and is emitted from the guide plate through the emission face to provide illumination output light for backlighting of the liquid crystal display panel, comprising:

a liquid crystal layer, and

a light control face for modifying directivity of the illumination output light, wherein said light control face is directed to the surface light source device, the light control face forming a surface of the liquid crystal display panel itself.

2. (ONCE AMENDED) A liquid crystal display comprising:

a liquid crystal display panel disposed apart from a surface light source device provided with a guide plate having an incidence end face, an emission face and a primary light source supplying primary light which enters into the guide plate through the incidence end face and is emitted from the guide plate through the emission face to provide illumination output light for backlighting of the liquid crystal display panel,

wherein said liquid crystal display panel is provided with a light control face for modifying directivity of the illumination output light,

said light control face being directed to the surface light source device, and  
the light control face forming a surface of the liquid crystal display panel itself.

4. (ONCE AMENDED) A unified composite optical element comprising:

a polarization film [one face of which provides]; and

a light control face for modifying directivity of input light, said light control face being one surface of said polarization film itself.

5. (ONCE AMENDED) A unified composite optical element comprising:

a polarization separating sheet member which transmits input light  
[component] compon nts having a first polarization plane and reflects input light

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[component]components having [another]a second polarization plane perpendicular to said first polarization plane,

wherein one face of said polarization separating sheet member [provides]itself is a light control face for modifying directivity of input light.

6. (TWICE AMENDED) A unified composite optical element comprising a laminated structure, comprising:

a polarization separating sheet member which transmits input light components having a first polarization plane and reflects input light components having a second polarization plane perpendicular to the first polarization plane; and

a polarization film, wherein one face of the unified composite optical element [provides]itself is a light control face for modifying directivity of input light.

7. (ONCE AMENDED) A liquid crystal display device, comprising:

a surface light source device;

a unified composite optical element comprising:

a polarization film; and

a prismatic element [have]having projection rows facing the surface light source device, the prismatic element being formed on one face of the polarization film such that together, the polarization film and the prismatic element form the unified composite optical element[.]; and

a liquid crystal display panel formed adjacent to the unified composite optical element with the polarization film facing the liquid crystal display panel.

8. (ONCE AMENDED) A liquid crystal display device according to claim 7,

wherein the surface light source device and the projection rows of the prismatic element are-separated by a distance of 0.5 to [5]1 mm.

9. (ONCE AMENDED) A liquid crystal display device, comprising:

a surface light source device;

a composite optical element comprising:

a polarization film;

a polarization separating sheet which transmits light components having a first

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polarization plane and reflects light components having a second polarization plane perpendicular to the first polarization plane; and

a prismatic element [have]having projection rows facing the surface light source device, the polarization separating sheet being interposed between the polarization film and the prismatic element such that together, the polarization film, the polarization separating sheet and the prismatic element form the unified composite optical element with the prismatic element serving as one face of the composite optical element, and

a liquid crystal display panel formed adjacent to the unified composite optical element with the polarization film of the unified composite optical element facing the liquid crystal display panel.

10. (ONCE AMENDED) A liquid crystal display device according to claim 9, wherein the surface light source device and the projection rows of the prismatic element are separated by a distance of 0.5 to [5]1 mm.

Please ADD the following new claims.

11. (NEW) A liquid crystal display device positioned adjacent to a surface light source device, comprising:

a liquid crystal layer;  
a polarization layer to transmit light components having a first polarization plane and reflect light components having a second polarization plane perpendicular to the first polarization plane, the polarization layer having front and back sides, the front side facing the liquid crystal layer, the back side facing the surface light source device; and  
a prism sheet having front and back sides, the back side of the prism sheet having projection rows facing the surface light source device, the front side of the prism sheet being fixed directly to the back side of the polarization layer, such that the polarization layer and the prism sheet together form a unified structure.

12. (NEW) A liquid crystal display device according to claim 11, wherein  
the liquid crystal layer has front and back sides, and  
the liquid crystal display device has a pair of polarization layers such that one polarization layer is positioned on the front side of the liquid crystal layer and one polarization layer is position on the back side of the liquid crystal layer.

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13. (NEW) A liquid crystal display device according to claim 11, wherein the polarization layer is a polarization film.

14. (NEW) A liquid crystal display device according to claim 11, wherein the polarization layer is a polarization separating sheet.



12: LCD PANEL

10: LCD

11: SURFACE LIGHT SOURCE DEVICE OF SIDE LIGHT TYPE

1~0.5 [mm]

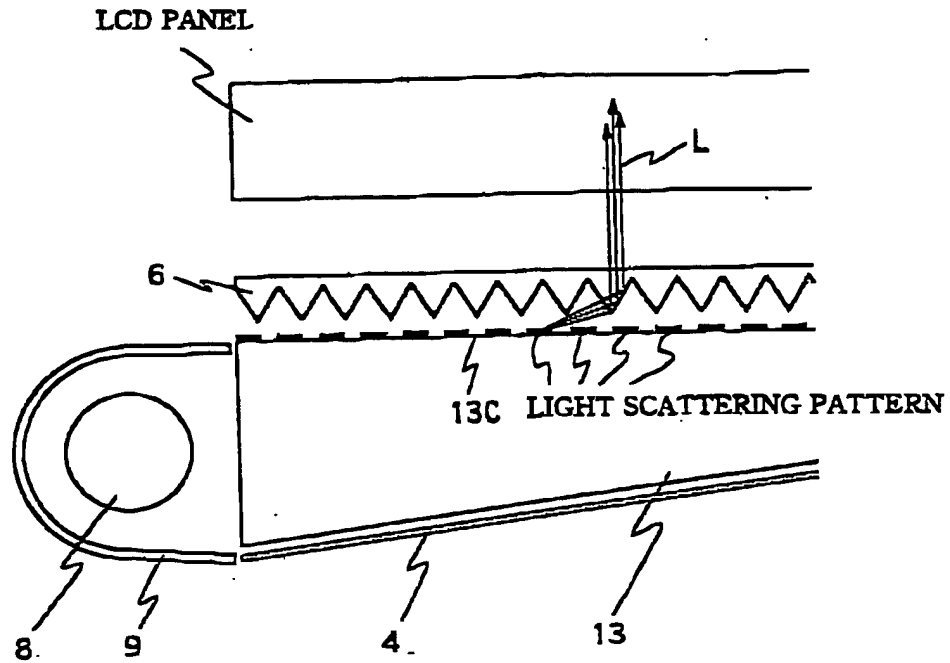


Fig. 2 (Prior Art)

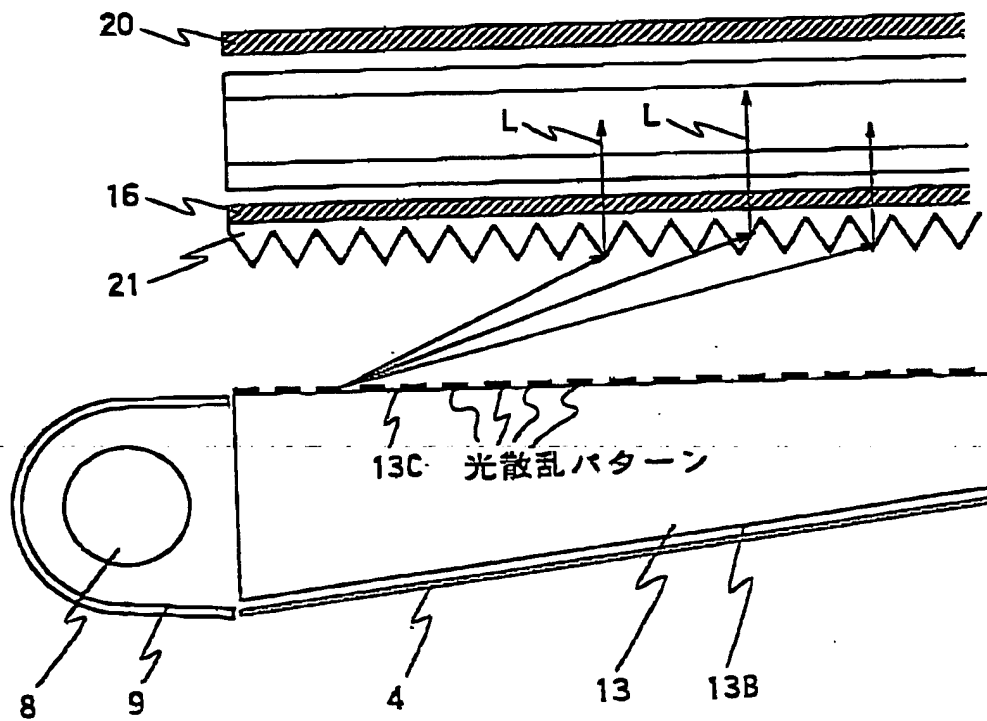
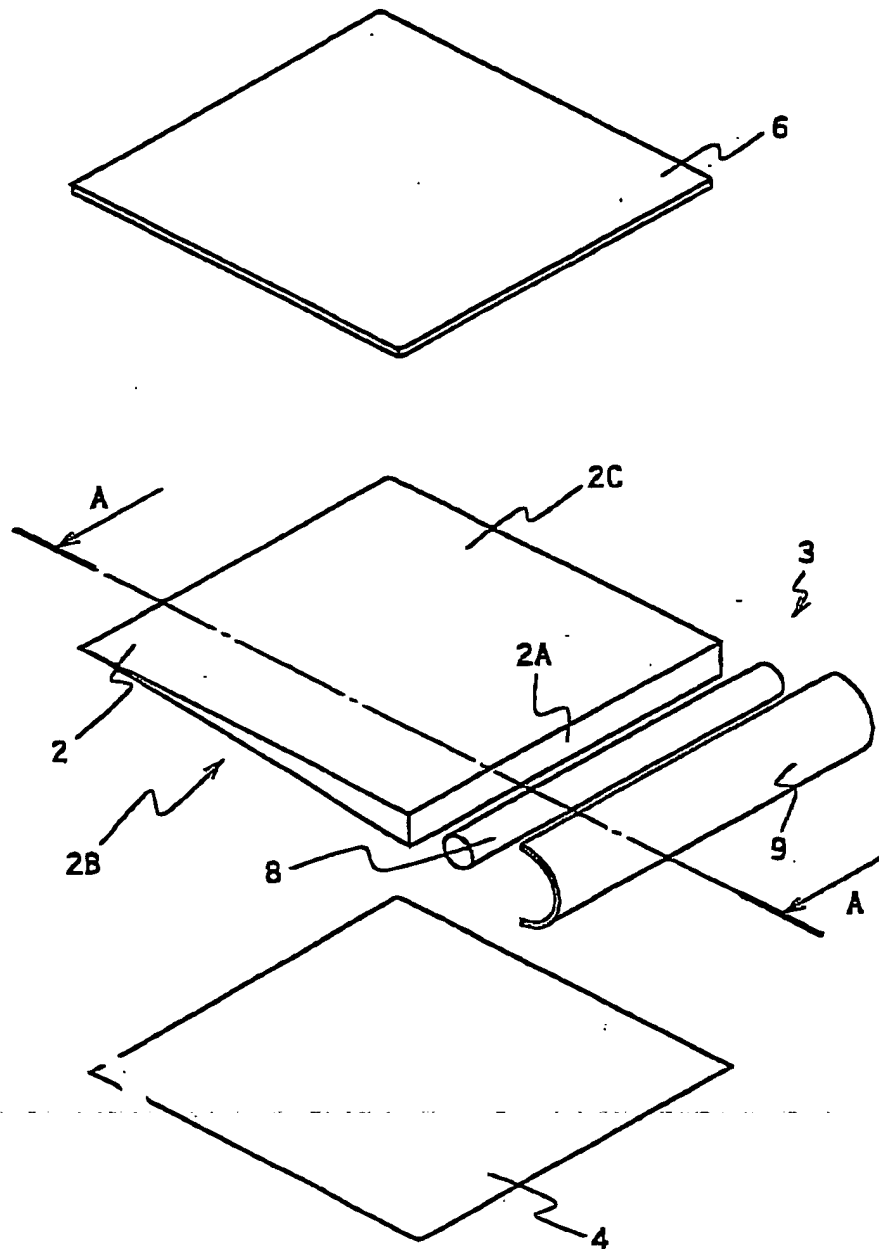


Fig. 3



(Prior Art)

1: SURFACE LIGHT SOURCE DEVICE OF SIDE LIGHT TYPE

Fig. 4

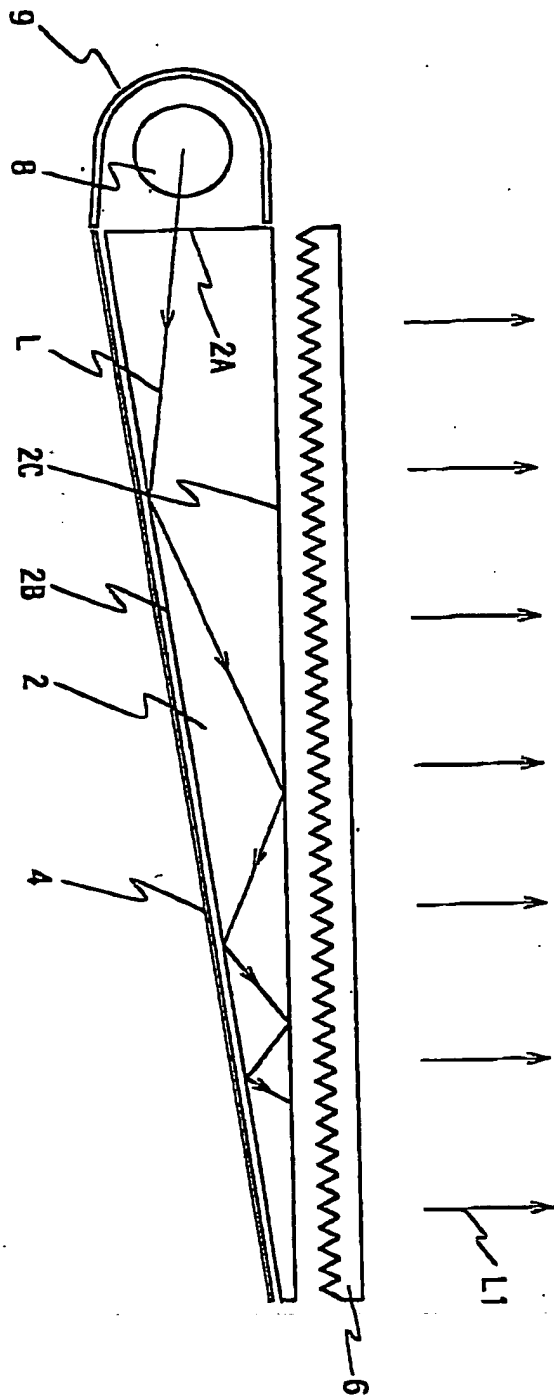


Fig. 5

(Prior Art)